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Research on the Construction Logic and Practical Path of the Quality Curriculum System for Maritime Majors in Higher Vocational Colleges from the Perspective of "Dual Integration-Driven"

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Abstract: Aiming at the practical dilemmas of insufficient cultural infiltration and disjointed literacy cultivation in the construction of quality curriculum systems for maritime majors in higher vocational colleges, this study takes the dual integration of maritime culture and professional literacy as the core research perspective. By adopting the research methods of literature review, case analysis and field investigation, it systematically combs the theoretical connotation and educational value of dual integration-oriented education, conducts an in-depth analysis of the internal construction logic of the quality curriculum system, and explores operable practical implementation paths. The research results show that the construction of the dual integration-driven quality curriculum system must be rooted in the industrial characteristics and post demands of the maritime field, and can be realized through the progressive logical chain of core element identification → dual integration logical coupling → three-dimensional framework construction. The three-dimensional practical path of scenario-based implantation + school-enterprise collaborative education + data-driven dynamic optimization constructed in this study can effectively improve the industry adaptability of maritime talent cultivation and the systematisms of coordinated education between culture and literacy. This research provides theoretical support and practical paradigms for the high-quality reform of quality curriculum systems for maritime majors in higher vocational colleges, and also offers a reference for the integration of professional culture and literacy cultivation in vocational education.

Keywords: Dual Integration-Driven; Maritime Culture; Professional Literacy; Higher Vocational Maritime Majors; Quality Curriculum System; Construction Logic.

1. Research Background

Driven by the national Maritime Power Strategy and the high-quality development of the global shipping industry, the demand for maritime talents in China has undergone a fundamental transformation from a single-skill orientation to a comprehensive literacy orientation. Modern maritime practitioners are required to not only possess solid professional operation skills and professional knowledge, but also have profound maritime cultural heritage, standardized professional literacy and international professional competence. As the main base for cultivating applied and skilled maritime talents, higher vocational colleges are facing prominent common problems in the construction of quality curriculum systems: curriculum design is either generalized and divorced from maritime professional characteristics, focusing on the teaching of general cultural knowledge while ignoring the infiltration of professional maritime culture; or it overemphasizes technical skill training while weakening the systematic cultivation of professional literacy. As a result, the coordinated education of maritime culture and professional literacy fails to be realized, making it difficult to meet the industrial demand for high-quality maritime talents with "both ability and political integrity".

At present, there is a notable gap between the professional literacy and cultural accomplishment of graduates from maritime majors in Chinese higher vocational colleges and the talent demand standards of the international maritime industry, which directly restricts the international competitiveness of Chinese seafarers and the high-quality development of the domestic shipping industry [1]. In response to this problem, major transportation-related higher vocational colleges in China have actively carried out practical exploration on the comprehensive construction of quality curricula for maritime majors, and initially formed a variety of practical models for curriculum system reform through the coordinated promotion of technical skill training, maritime cultural inheritance and professional literacy cultivation. This has laid a practical foundation for the construction of the dual integration-driven quality curriculum system. Based on this, this study takes the dual integration of maritime culture and professional literacy as the core orientation, and deeply explores the internal construction logic and practical implementation path of the quality curriculum system for maritime majors in higher vocational colleges. It aims to fill the research gap caused by the lack of professional perspective and systematic design in the current research field, and provide theoretical and practical support for improving the quality of maritime talent cultivation in higher vocational education and enhancing the industry adaptability of graduates.

2. Current Development Status of the Quality Curriculum System for Maritime Majors in Higher Vocational Colleges

2.1. Basic Progress in the Construction of the Curriculum System

At present, higher vocational maritime colleges and

universities in China have generally recognized the core value of quality curriculum systems in the cultivation of high-quality maritime talents, and have gradually promoted the characteristic construction and optimized reform of quality curriculum systems with the integration of industry and education as the starting point. In terms of integrating maritime culture into curricula, most colleges have carried out preliminary exploration on infiltrating maritime cultural elements into curriculum content and teaching processes. For example, Zheng Shanglong and Yang Shenhua integrated navigation historical and cultural elements such as Zheng Hes Voyages to the Western Seas into the ideo logical and political teaching of theIntroduction to Navigation course, which effectively stimulated students professional identity and maritime cultural confidence [2]; Wang Xuefeng explored the integration path of the great founding spirit of the Party into the ideological and political education of maritime-related professional courses, and formed an integrated education concept that combines spiritual core inheritance with vocational education practice [3], providing valuable practical experience for the cultural empowerment of the quality curriculum system.

In terms of optimizing the curriculum system structure, some colleges have started to promote the upgrading and transformation of the quality curriculum system by relying on the deep integration of industry and education and school-enterprise collaborative linkage. Ge Shenwei et al. took the Naval Architecture and Ocean Engineering major of Jiangsu Shipping College as a case, and realized the coordinated promotion of technical skill training, maritime cultural inheritance and professional literacy cultivation in curriculum system construction by relying on the comprehensive industry-education integration service platform [4]; Hui Jie constructed a talent cultivation model integrating "posts, courses, competitions and certifications" in the research on the Marine Engineering Technology major, closely linked national vocational skill level standards with curriculum system design, and strengthened the post pertinence of professional literacy cultivation [5], promoting the transformation of the quality curriculum system from the traditional "knowledge-imparting type" to the modern "competency-developing type". Meanwhile, digital technological empowerment has become an important development direction for the optimization of the quality curriculum system. Zhang Xuanjun, Liu Jiwen et al. developed a virtual-real integrated intelligent engine room project, which restored actual maritime operation scenarios through virtual simulation technology, providing important technical support for the upgrading and optimization of the practical teaching module of the quality curriculum [6].

2.2. Core Shortcomings of the Current Curriculum System

Although the construction of the quality curriculum system for maritime majors in higher vocational colleges has made certain preliminary progress, from the perspective of adapting to the high-quality development demands of the maritime industry and the goal of dual integration-oriented education, there are still prominent core shortcomings and practical dilemmas. First, the systematicness of the integration of maritime culture and professional literacy is insufficient, and a collaborative education mechanism is lacking. Most curriculum systems have not formed a systematic and organic integration mechanism of "maritime culture + professional literacy". Research by Huang Mei and Li Xianqiang et al. shows that the core pain point in the implementation of ideological and political education in maritime-related professional courses is the separation between the infiltration of maritime cultural elements and the cultivation of professional literacy: most courses only take maritime cultural content as "additional teaching materials" or "auxiliary content", and fail to form a systematic linkage mechanism of cultural infiltration → literacy generation → ability output [7]; Zhao Yus statistical research in Research on the Construction of Ideological and Political Education in Higher Vocational Maritime Professional Groups from the Perspective of Integration shows that only 28% of maritime-related courses have a relatively systematic design for the integration of ideological and political education and maritime culture, and 53% of courses only occasionally mention relevant maritime cultural elements in the teaching process, resulting in a lack of systematicness and continuity in the integration of culture and literacy [8].

Second, the industrial adaptability and post pertinence of the curriculum system structure are insufficient, and the disconnection between curriculum design and industrial demand is prominent. Some higher vocational colleges still adopt the general quality curriculum framework of ordinary higher education when constructing maritime quality curriculum systems, and fail to fully optimize curriculum module setting and content design in combination with the industrial characteristics and post operation rules of the maritime field. Yin Hui, Dong Haihui et al. pointed out that curriculum reform based on the systematic work process is the core direction for the optimization of vocational education curricula, but most current quality curricula for maritime majors have not transformed the actual operation processes and post demand standards of the maritime industry into curriculum modules and teaching content, leading to a serious disconnection between curriculum content and maritime post demands [9]; research by Chen Xuefeng et al. also pointed out that the fundamental reason for the gap between the professional literacy of higher vocational maritime major graduates and international maritime talent standards is the insufficient post pertinence of the professional literacy cultivation module in the curriculum system, as well as the lack of systematic design for cultivating key competencies required by maritime posts [1].

Third, the school-enterprise collaborative construction mechanism of the curriculum system is absent, and in-depth industrial participation is insufficient. Bu Yan pointed out in research on modern apprenticeship in vocational education that the absence of in-depth school-enterprise collaboration will lead to a disconnection between curriculum content and industrial development demands [10]. This problem is particularly prominent in the construction of the quality curriculum system for maritime majors: most higher vocational colleges have not yet formed a long-term and stable collaborative construction mechanism featuring "enterprise participation in curriculum design, joint construction and sharing of teaching resources, and joint evaluation of education quality". The update of curriculum content lags behind the development needs of the shipping industry in terms of technological progress and cultural inheritance, making it difficult to form a closed loop of industrial demand → curriculum setting → literacy output → talent evaluation in maritime talent cultivation.

3. Construction Logic of the Dual Integration-Driven Quality Curriculum System for Maritime Majors in Higher Vocational Colleges

The construction of the dual integration-driven quality curriculum system for maritime majors in higher vocational colleges must take the high-quality development demands of the maritime industry and the post competency requirements of maritime practitioners as the fundamental orientation, follow the progressive internal logic of core element identification → dual integration logical coupling → three-dimensional framework construction, break the separation barrier between maritime culture and professional literacy in the current curriculum system, promote the transformation of the two from "dispersed existence" to "organic integration", and form a coordinated education pattern where culture empowers literacy and literacy carries culture.

3.1. Core Element Identification: Anchoring the Content Foundation of Dual Integration-Oriented Education

Core element identification is the logical premise and content foundation for the construction of the dual integration-driven quality curriculum system. It is necessary to fully consider the industrial uniqueness and cultural connotation of maritime culture, as well as the post pertinence and competency hierarchy of professional literacy, and extract the core elements of the two to form a precisely adapted dual integration education content matrix. In the dimension of maritime culture, combining the core connotation of the navigation spirit in the new era and the high-quality development characteristics of the maritime industry, three types of core cultural elements with clear levels and distinct connotations are extracted: first, the spiritual core category, including the pioneering and forging ahead spirit, peaceful exchange and win-win cooperation concept embodied in Zheng Hes spirit, as well as the patriotic dedication, realistic pragmatism and rigorous responsibility required of modern navigators, which provide core value guidance for students professional literacy cultivation; second, the normative criterion category, including maritime legal norms, maritime safety red lines, marine ecological environmental protection requirements and international maritime industry consensus, which serve as the rigid institutional basis for students professional literacy cultivation; third, the cultural symbol category, including historical relics of the Maritime Silk Road, traditional navigation intangible cultural heritage skills, modern port culture and shipping enterprise culture, which provide perceptible and experiential teaching carriers for the infiltration of maritime culture in teaching.

In the dimension of professional literacy, based on the actual operation scenarios of maritime posts and the long-term career development needs of maritime practitioners, four types of key professional competencies closely linked to maritime post demands are identified: first, responsibility-taking ability, referring to the professional responsibility for protecting maritime life and property safety and the marine ecological environment; second, emergency response ability, referring to the professional competence of rapid response, scientific judgment and standardized disposal of sudden maritime dangers and accidents; third, team collaboration ability, referring to the collaborative operation literacy and communication coordination ability required in maritime post scenarios such as ship navigation, port operation and maritime rescue; fourth, cross-cultural communication ability, referring to the multi-cultural communication and adaptation ability to fit the international shipping environment and cross-border maritime cooperation. On the basis of extracting the core elements of maritime culture and professional literacy, a two-way corresponding and precisely matching relationship between cultural elements and literacy competencies is established, forming a dual integration-oriented education content foundation with clear goals, specific content and close linkage.

3.2. Dual Integration Logical Coupling: Constructing the Internal Mechanism of Element Linkage

Based on the identified core elements of dual integration, a systematic dual integration coupling mechanism of cultural infiltration → literacy generation → practice reinforcement is constructed to realize the in-depth linkage, organic integration and synchronous cultivation of maritime culture and professional literacy in the curriculum system. From the horizontal dimension, a precise binding and one-to-one correspondence relationship between maritime cultural elements and professional literacy competencies is established: maritime safety culture and normative criterion elements are deeply coupled with emergency response ability, and the standardized awareness and rigorous operation habits for maritime danger disposal are strengthened through safety culture infiltration; maritime team culture and the spirit of mutual assistance in the same boat are closely connected with team collaboration ability, and collaborative operation efficiency and communication coordination level are improved through the cultivation of maritime team culture; maritime legal culture and responsibility culture are mutually bound with responsibility-taking ability, and the bottom-line thinking and professional responsibility of abiding by maritime norms and shouldering responsibilities bravely are consolidated through the learning of maritime legal norms and responsibility culture; the open and inclusive culture of the Maritime Silk Road and international maritime culture are organically integrated with cross-cultural communication ability, and the adaptability and communication skills for international maritime communication are enhanced with the concept of cultural inclusiveness and an international vision.

From the vertical dimension, a three-stage progressive cultivation chain of cognition → internalization → externalization is constructed for the dual integration of maritime culture and professional literacy: in the cognitive stage, students master the core connotation of maritime culture and the basic requirements of professional literacy through systematic classroom teaching and theoretical learning; in the internalization stage, students transform maritime cultural concepts and professional literacy standards into internal value recognition and professional cognition through situational experience, case analysis and role-playing; in the externalization stage, students realize the practical application and ability output of maritime cultural cognition and professional literacy competencies through practical operation, on-the-job training and scenario simulation, forming a complete closed loop of cultural learning → literacy recognition → practical output → ability improvement. This vertical progressive cultivation chain

ensures that dual integration-oriented education is fully implemented from the theoretical cognitive level to the practical application level, and avoids the separation between cultural learning and literacy cultivation.

3.3. Three-Dimensional Framework Construction: Forming the Systematic Structure of the Curriculum System

Based on the dual integration coupling logic of "horizontal precise matching + vertical progressive cultivation", a three-dimensional integrated curriculum structure consisting of a basic cultural module + core literacy module + practical integration module is constructed to realize the all-round coverage, systematic infiltration and hierarchical cultivation of maritime cultural elements and professional literacy competencies in the quality curriculum system. The basic cultural module takes the cognition and inheritance of maritime culture as the core goal, offering compulsory courses such as Introduction to Maritime Culture, Maritime Silk Road Culture and Navigation Spirit and Maritime Legal Norms and Professional Ethics. It systematically teaches the history of navigation development, the core connotation of maritime culture, maritime industry norms and international maritime conventions, helping students lay a solid maritime cultural foundation and providing core value support and institutional norm basis for professional literacy cultivation. This module accounts for 30% of the total credits of the quality curriculum system, focusing on students cultural cognition and value shaping.

The core literacy module takes the systematic cultivation of professional literacy as the core goal, setting up specialized elective courses such as Maritime Emergency Response Practice, International Shipping Cross-Cultural Communication, Maritime Team Collaboration and Operation and Marine Ecological Environmental Protection. These courses target the four key professional competencies of responsibility-taking, emergency response, team collaboration and cross-cultural communication, forming a professional literacy competency system that precisely adapts to maritime post demands. This module accounts for 30% of the total credits of the quality curriculum system, focusing on students theoretical learning and skill training of professional literacy.

The practical integration module takes the organic integration and practical application of maritime culture and professional literacy as the core goal, designing characteristic practical courses and on-the-job training projects such as ship navigation simulation training, port operation collaborative practice, maritime emergency rescue drills and maritime culture practical research. It integrates maritime cultural elements and professional literacy requirements into real maritime industry scenarios and post operation processes, realizing the educational goal of learning by doing and understanding by practice. This module accounts for 40% of the total credits of the quality curriculum system, highlighting the core position of practical teaching in vocational education and the practical orientation of dual integration-oriented education. The three modules are interrelated, mutually supportive and progressive, forming a three-dimensional integrated quality curriculum system structure with clear levels, distinct goals and organic integration, and comprehensively supporting the realization of the dual integration-oriented education goal.

4. Practical Path of the Dual Integration-Driven Quality Curriculum System for Maritime Majors in Higher Vocational Colleges

Focusing on the effective implementation of the dual integration-driven quality curriculum system and aiming to solve the core problems of formalized cultural infiltration and disjointed literacy cultivation in current curriculum construction, this study constructs a three-dimensional practical path of scenario-based teaching implantation + school-enterprise collaborative education + data-driven dynamic optimization, and forms a closed-loop education mechanism of college teaching → industrial scenario → practical application → dynamic feedback to ensure the systematic implementation and effective landing of the dual integration-oriented education goal in actual teaching.

4.1. Scenario-Based Teaching Implantation: Realizing the Concrete Implementation of Dual Integration Content

Taking the real operation scenarios and typical cases of the maritime industry as the core carrier, the scenario-based teaching method is adopted to promote the transformation of dual integration content from "abstract theory" to "concrete experience", avoiding the formalization and super ficialization of maritime cultural infiltration and professional literacy cultivation. On the one hand, immersive maritime practice training scenarios are created, and a VR maritime professional training center is built relying on digital and intelligent technologies. Typical maritime operation scenarios such as ship navigation, maritime emergency rescue, port cargo operation and maritime law enforcement supervision are highly restored through virtual simulation technology, allowing students to intuitively perceive the connotation of maritime safety culture, team culture and responsibility culture in the simulated operation process, and temper and improve core professional literacy such as emergency response, team collaboration and responsibility-taking in scenario operation. This realizes the organic integration of cultural infiltration and literacy cultivation in immersive experience.

On the other hand, scenario-based characteristic courses with dual integration features are developed, and scenario-based teaching design is integrated into the whole process of quality curriculum teaching: the display and practice of maritime intangible cultural heritage skills and cruise culture service scenarios are integrated into the Cruise Culture Service course; real maritime danger case analysis and standardized disposal drills are set up in the Ship Emergency Response course; students are organized to conduct field research and practical experience in ports, maritime museums, shipping enterprises and other venues in the Maritime Silk Road Culture Research course, enabling students to experience the charm of maritime culture in real scenes and understand the post requirements of professional literacy through field investigation. Meanwhile, the scenario-based teaching mode of "scenario introduction → task-driven → practical operation → reflection and summary" is innovated. Guided by real industrial tasks and post operation requirements, scenario-based teaching tasks with dual integration goals are designed to guide students to actively

absorb maritime cultural connotation and improve professional literacy competencies while completing scenario tasks, realizing the precise implementation of dual integration content in task-driven teaching.

4.2. School-Enterprise Collaborative Education: Constructing the Industrial Support System for Dual Integration Practice

A deep and long-term school-enterprise collaborative education mechanism is established, with shipping enterprises, maritime administrative departments and maritime industry associations as important partners in curriculum system construction, to strengthen the practical support and industrial adaptability of the dual integration-driven quality curriculum system. First, a school-enterprise joint curriculum standard formulation mechanism is established. A special curriculum construction committee composed of college teachers, enterprise front-line technical backbones, senior crew members and maritime industry experts is set up to jointly formulate the teaching objectives, content framework, teaching methods and evaluation standards of dual integration quality curricula in combination with the latest development demands of the maritime industry, post operation standards and international maritime talent demand standards, ensuring the precise connection between curriculum content and maritime industrial post demands.

Second, a school-enterprise joint double-qualified teacher team construction mechanism is built. Front-line technical backbones, senior crew members and enterprise managers with rich maritime operation experience and profound cultural accomplishment are selected as industrial mentors, responsible for practical course teaching, real industrial case explanation and scenario simulation training guidance. At the same time, on-campus professional teachers are regularly arranged to take temporary positions in shipping enterprises and maritime administrative departments, conduct on-the-job training and industrial research, and improve teachers industrial practical ability and dual integration teaching design level. This builds a high-quality collaborative teaching team of "on-campus professional teachers + enterprise industrial mentors" with complementary advantages and coordinated teaching.

Third, a school-enterprise joint teaching resource construction and sharing mechanism is established. A maritime culture case database, a professional literacy training case database and a virtual simulation training resource database are jointly built with shipping enterprises and maritime industry associations, transforming real enterprise operation projects, typical maritime danger disposal cases and excellent maritime cultural cases into high-quality teaching resources and curriculum content. Meanwhile, full use is made of enterprises on -the-job training venues, professional equipment and post resources to carry out practical teaching of quality curricula, realizing the "seamless connection between classroom teaching content and post operation requirements, and the in-depth integration of maritime cultural resources and industrial practice scenarios", providing solid industrial support for the realization of the dual integration-oriented education goal.

4.3. Data-Driven Dynamic Optimization: Establishing the Sustainable Development Mechanism of the Curriculum System

A multi-dimensional, full-process and real-time data feedback system is constructed, with education and teaching data, industrial demand data and talent evaluation data as the core basis. Data is used to drive the dynamic optimization and sustainable development of the dual integration-driven quality curriculum system, ensuring that curriculum content, teaching methods and module settings are always adapted to the high-quality development of the maritime industry and the needs of dual integration-oriented education. Three types of standardized data collection channels with clear indicators and scientific methods are established: first, teaching process data, which tracks and collects students mastery of dual integration content, the improvement level of professional literacy competencies and the teaching effect of dual integration courses through classroom performance monitoring, simulation training achievement evaluation, course assessment and teaching feedback surveys; second, industrial feedback data, where questionnaires are regularly issued to cooperative enterprises and in-depth discussion and exchange activities are carried out to collect enterprises evaluation opinions on graduates maritime cultural adaptability, professional literacy compliance rate and post operation ability, and grasp the latest changes in maritime post demands for professional literacy; third, industrial development data, which relies on the school-enterprise cooperation platform and maritime industry associations to capture the new expansion of maritime cultural connotation and new requirements for professional literacy competencies brought by new technologies, new policies and new norms in the maritime industry such as intelligent navigation, green shipping and digital ports.

A regular curriculum optimization mechanism is established. A comprehensive dual integration curriculum system optimization report is formed every semester based on the statistical analysis and in-depth research of the three types of data, and targeted adjustments are made to curriculum content proportion, teaching method selection, practical project setting and module credit allocation according to the report. For example, in response to the development trend of intelligent navigation in the maritime industry, the "intelligent navigation professional ethics" cultural module and "human-machine collaboration ability" literacy training content are added to the curriculum system; according to enterprise feedback on graduates insufficient cross -cultural communication ability, the teaching of cross-cultural communication courses is strengthened and the proportion of international maritime communication scenario simulation training is increased; in view of the new requirements for marine ecological environmental protection in the new era, maritime ecological culture elements in the basic cultural module are enriched and students marine environmental protection responsibility is enhanced. Through the data-driven dynamic optimization mechanism, the dual integration-driven quality curriculum system always keeps pace with the high-quality development of the maritime industry and talent demand standards, realizing the sustainable development of the curriculum system.

5. Conclusion

This study takes the dual integration of maritime culture

and professional literacy as the core perspective, aims at the practical dilemmas of insufficient cultural infiltration and disjointed literacy cultivation in the construction of quality curriculum systems for maritime majors in higher vocational colleges, and systematically clarifies the internal construction logic and practical implementation path of the dual integration-driven quality curriculum system. The research results show that the construction of the dual integration-driven quality curriculum system must be rooted in the industrial characteristics and post demands of the maritime field, and its internal construction logic follows the progressive logical chain of core element identification → dual integration logical coupling → three-dimensional framework construction: core element identification needs to focus on extracting three types of maritime cultural core elements (spiritual core, normative criterion, cultural symbol) and four types of professional literacy key competencies (responsibility-taking, emergency response, team collaboration, cross-cultural communication); dual integration logical coupling needs to establish a systematic linkage mechanism of "horizontal precise matching between elements and competencies + vertical progressive cultivation of cognition-internalization-externalization"; the three-dimensional integrated curriculum framework of "basic cultural module + core literacy module + practical integration module" realizes the systematic integration and hierarchical coverage of the dual integration education content system.

At the practical implementation level, the three-dimensional practical path of scenario-based teaching implantation + school-enterprise collaborative education + data-driven dynamic optimization constructed in this study effectively solves the core problems of "formalized cultural infiltration and disjointed literacy cultivation" in current dual integration-oriented education, and forms a high-quality curriculum paradigm of "culture having carriers and literacy having approaches" for maritime majors in higher vocational colleges. This practical path realizes the concrete implementation of dual integration content through scenario-based implantation, the industrial support of dual integration practice through school-enterprise collaboration, and the sustainable development of dual integration curricula through dynamic optimization, forming a closed-loop education mechanism of "college teaching → industrial scenario → practical application → dynamic feedback". It effectively improves the industry adaptability of maritime talent cultivation and the systematicness of coordinated education between culture and literacy.

Future research can be further deepened and expanded in the following two aspects: first, expand the scope of practical application, carry out pilot application of the dual integration-driven quality curriculum system in more regional and types of higher vocational maritime colleges and universities, verify the universality and adaptability of the curriculum system and practical path, and further revise and improve the system and path according to pilot practice results; second, refine the evaluation index system, construct a scientific and systematic three-dimensional evaluation model of "maritime cultural infiltration degree + professional literacy compliance rate + industrial post adaptability", and design specific evaluation indicators and methods with reference to the comprehensive evaluation system for the employment ability of higher vocational maritime major graduates proposed by Liu Yanli [11], realizing the scientific evaluation of the implementation effect of the dual integration-driven quality curriculum system. Meanwhile, it is necessary to combine the digital and intelligent development trend of the maritime industry, accelerate the development of digital teaching resources and intelligent teaching platforms for dual integration-oriented education, improve the convenience and efficiency of practical path implementation, and provide more solid technical support for the high-quality construction of the dual integration-driven quality curriculum system for maritime majors in higher vocational colleges.

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